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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,120	12/06/2001	Makoto Hazama	011532	5226
38834	7590	07/27/2004	EXAMINER	
WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP 1250 CONNECTICUT AVENUE, NW SUITE 700 WASHINGTON, DC 20036			KENEDY, ANDREW A	
			ART UNIT	PAPER NUMBER
			1631	

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/003,120	Applicant(s) HAZAMA, MAKOTO	
	Examiner Andrew A. Kenedy	Art Unit 1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Amendment of Claims 1-3 in the reply of May 17, 2004, is acknowledged. Claims 1-3 are pending.

Applicant's arguments with respect to Claims 1-3 have been considered but are moot in view of the new ground(s) of rejection.

The following rejections and/or objections are either reiterated or newly applied, and constitute the complete set presently being applied to Claims 1-3. The text of those sections of Title 35 U.S.C. not included in this action can be found in the previous Office Action mailed on December 17, 2003.

Claim Rejections - 35 USC § 112

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, step (a) requires "performing waveform shaping by Fourier transformation on data of a certain number N of points from the head of the detected data with a parameter of a previously set peak interval". It is unclear from the above phrase whether the parameter is "with" (e.g., part of) the detected data, or whether the Fourier transformation is performed "with" (e.g., using) the parameter. It is also unclear when the peak interval was previously set since there is no previous step in the method requiring setting a peak interval. It is also unclear whether the parameter is a part of the peak interval, or whether the parameter is actually equivalent to the peak interval. In the instant specification Applicants disclose "The peak

interval (migration speed)" and "the parameter of the peak interval (migration speed)" (see respectively page 3, line 17; and page 3, lines 15-16). From these statements, it appears that the peak interval is migration speed, and that the parameter is either derived from or part of the peak interval. If the parameter is not actually equivalent to the peak interval, then it is unclear what the parameter actually is since Applicants do not disclose a definition or example of a parameter.

Claim 1, step (d) requires "Fourier transformation on N points from a position returning by L points ($L < M$) from final data precedently subjected to the sequence determination with a parameter of a precedently obtained peak interval". No previous step in the method mentions the acquisition or production of "final data". Therefore, there is insufficient antecedent basis for this limitation in the claim. It is also unclear which step or repetition number of the method "precedently subjected" refers to, since any previously occurring step or repetition where final data was subjected to sequence determination and any previously occurring step or repetition where a parameter of a peak interval was obtained would qualify as a precedent. It is unclear what is meant by "a position returning by L points from final data". Specifically, it is not clear whether one is supposed to return from the beginning, or the end, of the final data. And because it is not known what the final data actually is (as explained above), it is unclear in what way the final data is connected or contiguous to the data of N points, so that even if the method specified returning from a specific end of the final data, it would still be unclear where "a position returning by L points" should be located within the data of N points.

Claim 1 step (e) requires "determining the base sequence as to data of M points ($M < N$) of a central portion among data of N points subjected to second or later waveform shaping so as to be connected with data precedently subjected to the sequence determination". The above

limitation is unclear as to whether the base sequence determination of data of M points is to be connected with unprocessed data, or previous sequence determination results. It is also unclear which step or repetition number "precedently subjected" refers to, since any previously occurring step or repetition where data was subjected to sequence determination would qualify as a precedent. It is unclear whether the base sequence determination of data of P points in step (b) is to be connected to the base sequence determination of M points since the positional relationship between the two is unclear. The phrase "N points subjected to second or later waveform shaping" indicates that the same N points are subjected to multiple repetitions of waveform shaping. This appears to be inconsistent with the method as disclosed on page 5 of the specification and making reference to figures 2 and 3, wherein Applicants describe partially overlapping sets of N points each subjected only once to waveform shaping.

Claim 1, step (e) requires that "the steps (E)→(C)→(D) are repeated until data disappear or no analysis is required despite presence of data." The terminology "until data disappear" is confusing since no step in the method appears to result in the disappearance of data. For example, no method step requires an operation such as data deletion which would cause the disappearance of data. It appears that all of the steps of the method as claimed involve computational processing of the data without causing the disappearance of data.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew A. Kenedy whose telephone number is (571)-272-0574. The examiner can normally be reached on Monday-Friday 9:00am-5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on (571)-272-0722. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also

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enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

A.A.K. July 26, 2004

Marianne P. Allen
MARIANNE P. ALLEN
PRIMARY EXAMINER

7/26/04

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